

Improving Outcomes in Early Childhood Special Education

Using Outcomes Data to Guide
Implementation of Promising Practices



Early Childhood Special Education

The goal of early childhood special education services is to enable preschool children to participate in appropriate activities so that they will be active and successful participants now and in the future in a variety of settings – in their homes with their families, in the community, and in child care, preschool or school programs.

Federal Reporting: Early Childhood Outcomes

- States must report progress for children who receive services in the state for 6 or more months.
- Progress on selected outcomes is required for each child, regardless of the child's eligibility category.
- Progress is determined by comparing ratings at program entry and exit.

Federal Reporting: Early Childhood Outcomes

INDICATOR 7:

Percentage of preschool children (3-5 yrs) with IEPs who demonstrate improved:

- A. Positive social-emotional skills (including social relationships);
- B. Acquisition and use of knowledge and skills (including early language/communication and early literacy); and
- C. Use of appropriate behaviors to meet their needs.

Federal Reporting: Early Childhood Outcomes

Positive Social Emotional Skills (including social relationships)

- This outcome involves relating to adults, relating to other children, and for older children, following rules related to groups or interacting with others.
- It also includes concepts and behaviors such as attachment/separation/autonomy, expressing emotions and feelings, learning rules and expectations in social situations, and social interactions and social play.

Federal Reporting: Early Childhood Outcomes

Acquisition and use of knowledge and skills (including early language, communication, and early literacy).

- This outcome involves activities such as thinking, reasoning, remembering, problem solving, number concepts, counting, and understanding the physical and social worlds.
- It also includes a variety of skills related to language and literacy including vocabulary, phonemic awareness, and letter recognition.

Federal Reporting: Early Childhood Outcomes

Use of appropriate behaviors to meet needs.

- This outcome involves behaviors like taking care of basic needs, getting from place to place, using tools (such as forks, toothbrushes, and crayons) and contributing to their own health, safety, and well-being.
- It also includes integrating motor skills to complete tasks; taking care of one's self in areas like dressing, feeding, grooming, and toileting; and acting on the world in socially appropriate ways to get what one wants.

Federal Reporting: Reporting Categories

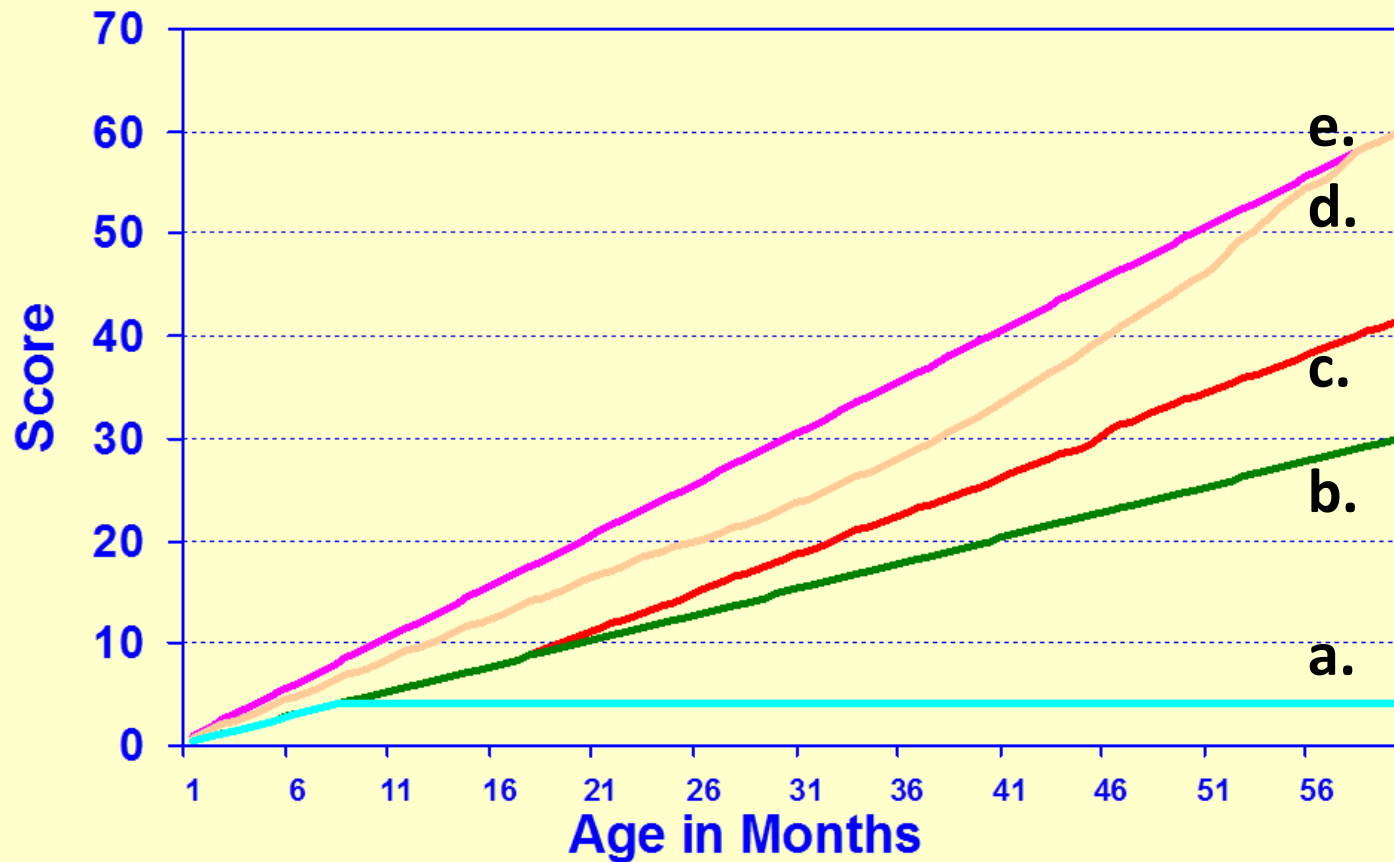
Progress on outcomes A., B., and C. is examined first by determining the percentage of:

- a. Children who did not improve functioning.
- b. Children who improved functioning but not sufficient to move nearer to functioning comparable to same aged peers.
- c. Children who improved functioning to a level nearer to same aged peers but did not reach it.
- d. Children who improved functioning to reach a level comparable to same aged peers.
- e. Children who maintained functioning at a level comparable to same aged peers.



Federal Reporting: Reporting Categories

Illustration of 5 Possible Paths



Federal Reporting: Data Collection

Data collected with the Battelle Developmental Inventory, 2nd Edition (BDI-2):

Outcome	BDI-2 Domains
Positive social-emotional skills	Personal-Social domain
Acquiring knowledge and skills	Communication domain Cognitive domain
Taking appropriate action to meet needs	Adaptive domain Motor domain

FFY 2010 Mississippi and National Outcomes

Outcome A: Positive social-emotional skills	MISSISSIPPI Number of Children	MISSISSIPPI Percentage of Children	NATIONAL Percentage of Children
a. Children who did not improve functioning	493	10.27%	1.9%
b. Children who improved functioning but not sufficient to move nearer to functioning comparable to same-aged peers	328	6.83%	12.3%
c. Children who improved functioning to a level nearer to same-aged peers but did not reach	242	5.04%	26.1%
d. Children who improved functioning to reach a level comparable to same-aged peers	473	9.86%	33.8%
e. Children who maintained functioning at a level comparable to same-aged peers	3263	67.99%	26.0%
Total	4799	100%	

Mississippi and National Outcomes

Outcome B: Acquisition and use of knowledge and skills	MISSISSIPPI Number of Children	MISSISSIPPI Percentage of Children	NATIONAL Percentage of Children
a. Children who did not improve functioning	553	11.53%	1.7%
b. Children who improved functioning but not sufficient to move nearer to functioning comparable to same-aged peers	776	16.17%	14.0%
c. Children who improved functioning to a level nearer to same-aged peers but did not reach	528	11.00%	31.8%
d. Children who improved functioning to reach a level comparable to same-aged peers	673	14.03%	35.1%
e. Children who maintained functioning at a level comparable to same-aged peers	2268	47.27%	17.5%
Total	4798	100%	

Mississippi and National Outcomes

Outcome C: Use of appropriate behaviors to meet needs	MISSISSIPPI Number of Children	MISSISSIPPI Percentage of Children	NATIONAL Percentage of Children
a. Children who did not improve functioning	597	12.53%	1.7%
b. Children who improved functioning but not sufficient to move nearer to functioning comparable to same-aged peers	416	8.73%	11.5%
c. Children who improved functioning to a level nearer to same-aged peers but did not reach	312	6.55%	21.0%
d. Children who improved functioning to reach a level comparable to same-aged peers	448	9.40%	34.8%
e. Children who maintained functioning at a level comparable to same-aged peers	2993	62.8%	31.0%
Total	4797	100%	

Federal Reporting: Summary Statements

States must also report on two summary statements for each outcome examining total growth and on-track performance:

- Of the children who entered below age expectations what percent substantially increased their rate of growth by the time they exited the program?
- Of the children in the program what percent were functioning within age expectations by the time they exited the program?

Federal Reporting: Summary Statement 1

Of the children who entered below age expectations what percent substantially increased their rate of growth by the time they exited the program?

- Calculated by *comparing children who improved functioning to a level nearer to same aged peers but did not reach it and children who improved functioning to reach a level comparable to same aged peers with all of the children who entered below same age peers.*

Formula $c + d / a + b + c + d$

FFY 2010 Mississippi and National Outcomes

Outcome A: Positive social-emotional skills	MISSISSIPPI Number of Children	MISSISSIPPI Percentage of Children	NATIONAL Percentage of Children
a. Children who did not improve functioning	493	10.27%	1.9%
b. Children who improved functioning but not sufficient to move nearer to functioning comparable to same-aged peers	328	6.83%	12.3%
c. Children who improved functioning to a level nearer to same-aged peers but did not reach	242	5.04%	26.1%
d. Children who improved functioning to reach a level comparable to same-aged peers	473	9.86%	33.8%
e. Children who maintained functioning at a level comparable to same-aged peers	3263	67.99%	26.0%
Total	4799	100%	

Federal Reporting: Summary Statement 1

Outcome A: Positive social-emotional skills

- $c + d / a + b + c + d$
- $242 + 473 / 493 + 328 + 242 + 473$
- $715 / 1536$
- 0.47 or 47%

Target: 49%
(Did not meet target)

Mississippi and National Outcomes

Outcome B: Acquisition and use of knowledge and skills	MISSISSIPPI Number of Children	MISSISSIPPI Percentage of Children	NATIONAL Percentage of Children
a. Children who did not improve functioning	553	11.53%	1.7%
b. Children who improved functioning but not sufficient to move nearer to functioning comparable to same-aged peers	776	16.17%	14.0%
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d. Children who improved functioning to reach a level comparable to same-aged peers	673	14.03%	35.1%
e. Children who maintained functioning at a level comparable to same-aged peers	2268	47.27%	17.5%
Total	4798	100%	

Federal Reporting: Summary Statement 1

Outcome B: Knowledge and skills

- $c + d / a + b + c + d$
- $528 + 673 / 553 + 776 + 528 + 673$
- $1201 / 2530$
- 0.47 or 47%

Target: 51%
(Did not meet target)

Mississippi and National Outcomes

Outcome C: Use of appropriate behaviors to meet needs	MISSISSIPPI Number of Children	MISSISSIPPI Percentage of Children	NATIONAL Percentage of Children
a. Children who did not improve functioning	597	12.53%	1.7%
b. Children who improved functioning but not sufficient to move nearer to functioning comparable to same-aged peers	416	8.73%	11.5%
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d. Children who improved functioning to reach a level comparable to same-aged peers	448	9.40%	34.8%
e. Children who maintained functioning at a level comparable to same-aged peers	2993	62.8%	31.0%
Total	4797	100%	

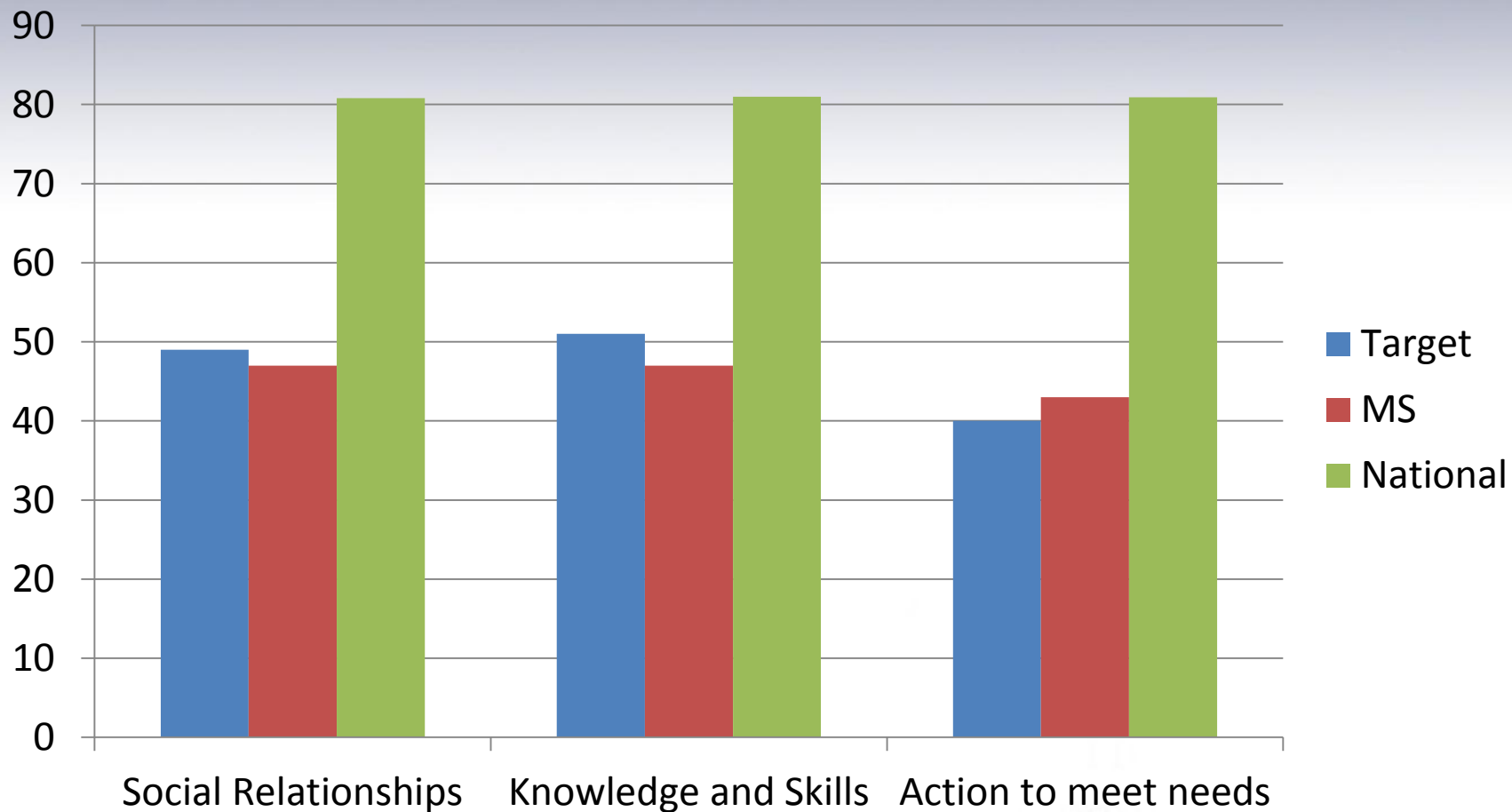
Federal Reporting: Summary Statement 1

Outcome C: Meets needs

- $c + d / a + b + c + d$
- $312 + 448 / 597 + 416 + 312 + 448$
- $760 / 1773$
- 0.43 or 43%

Target: 40%
(Met target)

Federal Reporting: Summary Statement 1



Federal Reporting: Summary Statement 2

Of the children in the program what percent were functioning within age expectations by the time they exited the program?

- Calculated by *children who improved functioning to reach a level comparable to same aged peers and children who maintained functioning at a level comparable to same aged peers with all of the children served in early childhood special education.*

Formula $d + e / a + b + c + d + e$

FFY 2010 Mississippi and National Outcomes

Outcome A: Positive social-emotional skills	MISSISSIPPI Number of Children	MISSISSIPPI Percentage of Children	NATIONAL Percentage of Children
a. Children who did not improve functioning	493	10.27%	1.9%
b. Children who improved functioning but not sufficient to move nearer to functioning comparable to same-aged peers	328	6.83%	12.3%
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d. Children who improved functioning to reach a level comparable to same-aged peers	473	9.86%	33.8%
e. Children who maintained functioning at a level comparable to same-aged peers	3263	67.99%	26.0%
Total	4799	100%	

Federal Reporting: Summary Statement 1

Outcome A: Positive social-emotional skills

- $d + e / a + b + c + d + e$
- $474 + 3263 / 493 + 328 + 242 + 473 + 3263$
- $3737 / 4799$
- 0.78 or 78%

Target: 82%
(Did not meet target)

Mississippi and National Outcomes

Outcome B: Acquisition and use of knowledge and skills	MISSISSIPPI Number of Children	MISSISSIPPI Percentage of Children	NATIONAL Percentage of Children
a. Children who did not improve functioning	553	11.53%	1.7%
b. Children who improved functioning but not sufficient to move nearer to functioning comparable to same-aged peers	776	16.17%	14.0%
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d. Children who improved functioning to reach a level comparable to same-aged peers	673	14.03%	35.1%
e. Children who maintained functioning at a level comparable to same-aged peers	2268	47.27%	17.5%
Total	4798	100%	

Federal Reporting: Summary Statement 1

Outcome B: Knowledge and skills

- $d + e / a + b + c + d + e$
- $673 + 2268 / 553 + 776 + 528 + 673 + 2268$
- $2941 / 4798$
- 0.61 or 61%

Target: 70%
(Did not meet target)

Mississippi and National Outcomes

Outcome C: Use of appropriate behaviors to meet needs	MISSISSIPPI Number of Children	MISSISSIPPI Percentage of Children	NATIONAL Percentage of Children
a. Children who did not improve functioning	597	12.53%	1.7%
b. Children who improved functioning but not sufficient to move nearer to functioning comparable to same-aged peers	416	8.73%	11.5%
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Total	4797	100%	

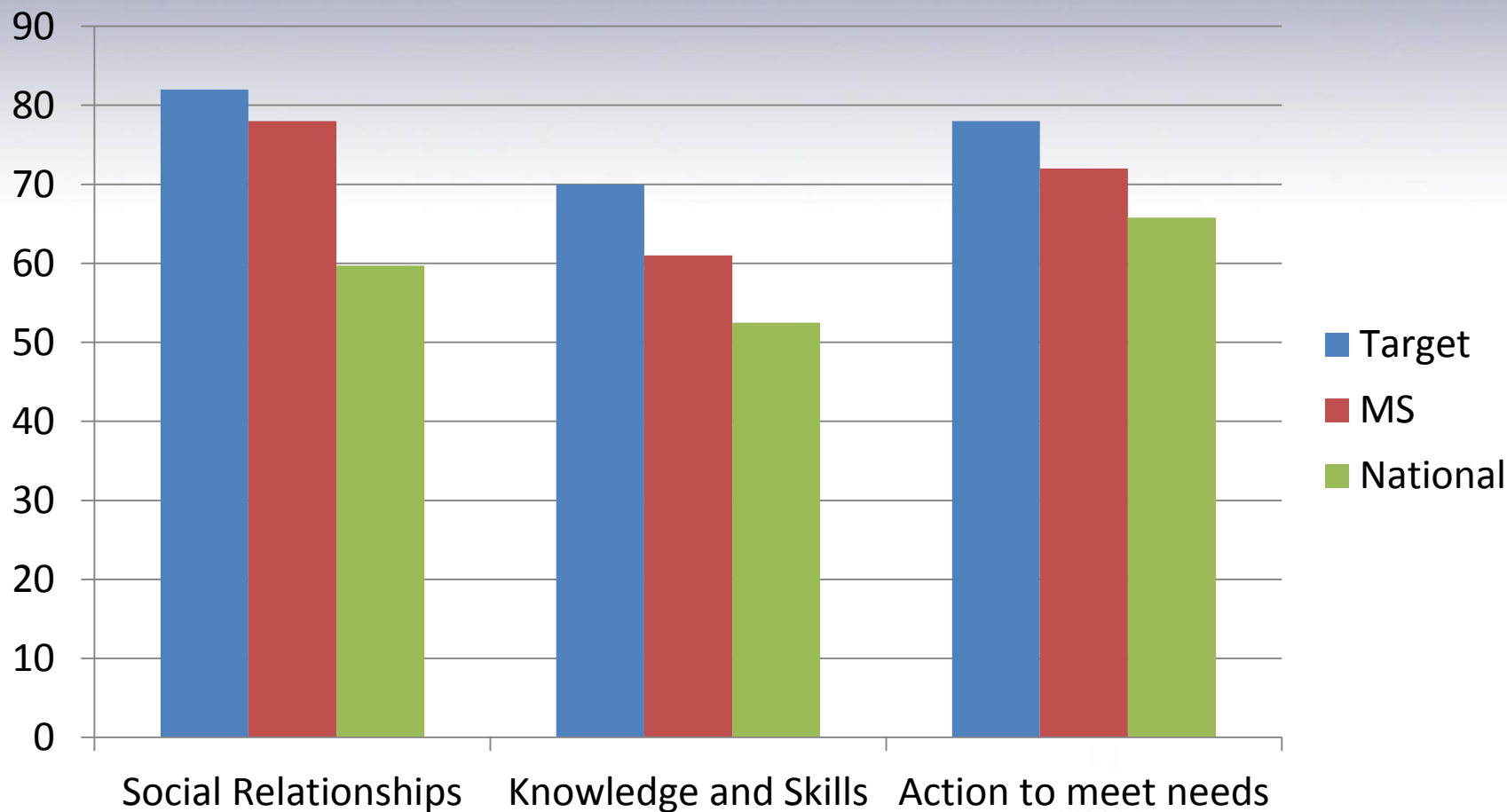
Federal Reporting: Summary Statement 1

Outcome C: Meets needs

- $d + e / a + b + c + d + e$
- $448 + 2993 / 597 + 416 + 312 + 448 + 2993$
- $3441 / 4797$
- 0.72 or 72%

Target: 78%
(Did not meet target)

Federal Reporting: Summary Statement 2



Interpreting District Data

- District-level Analyses
 - Determine overall effectiveness
- School-level Analyses
 - Determine effectiveness of different programs
- Classroom- or Caseload-level Analyses
 - Determine effectiveness of the curriculum and/or service provider/special instructor
- Child-level Analyses
 - Determine effectiveness of interventions or special education services provided

Interpreting District Data: Ensuring Quality Data

- Before
 - Ensure all staff have quality training on using the assessment tools
 - Ensure quality data entry to reduce any omissions
- During
 - Provide ongoing supervision of implementation
 - Provide feedback to implementers
 - Refresher training
- After
 - Review records
 - Data analyses for validity checks

Interpreting District Data: Ensuring Quality Data - Patterns

Children should differ from one another in reasonable ways.

- At entry and exit, there should be few children with very high/very low numbers relative to same-age peers.
- Few children should have entry numbers at or above age expectations on all three outcomes. Most should be below age expectations on at least one outcome.
- Distributions at entry will be centered on a lower number than exit.
- Children will differ from one another in their OSEP progress categories in reasonable ways.

Interpreting District Data: Ensuring Quality Data - Patterns

Functioning in one outcome should be related to functioning in other outcome areas.

- Functioning at entry in one outcome is related to functioning at entry in the other outcomes.
- Functioning at exit in one outcome is related to functioning at exit in the other outcomes.
- Progress between entry and exit in one outcome is related to progress in the other outcomes.

Interpreting District Data: Ensuring Quality Data - Patterns

Functioning at entry in one outcome should be related to functioning at exit in the same outcome area (e.g. comparing Outcome 1 entry and Outcome 1 exit).

- Most children maintain or improve their status relative to same age peers during their participation in EI and ECSE.
- Large changes in status relative to same age peers between entry and exit from the program are possible but rare.

Interpreting District Data: Ensuring Quality Data - Patterns

Programs should have similar results across years.

- Distributions of OSEP progress categories and OSEP summary statements should be similar from year to year (assuming the same kinds of children are being served).
- In districts that have undertaken effective program improvement activities, summary statements will increase across years.

Interpreting District Data: Ensuring Quality Data - Patterns

Similar program should have similar results.

- If programs are serving similar kinds of children, distributions of age-referenced entry scores should be similar.
- If programs are serving similar kinds of children and are similarly effective, distributions of age-referenced exit scores should be similar.
- If programs are equally effective, progress category and summary statement distributions should be similar.

Interpreting District Data: Ensuring Quality Data - Patterns

The numbers obtained should be related to the nature of the child's disability.

- Children with more severe disabilities should have lower entry numbers than children with less severe disabilities.
- Children with more severe disabilities will have larger percentages in categories a–c. Children with less severe disabilities will have larger percentages in categories d and e.
- Children with more severe disabilities will have lower percentages on summary statement 1 and 2 than children with less severe disabilities.

Interpreting District Data: What Questions Do We Ask?

Is our early childhood special education program effective?

- Compare by child characteristics
 - Compare by disability category
 - Compare by demographics (e.g., sex, race, SES)
 - Compare by language
 - Compare by age and functioning at entry
 - Comparison by category by outcome for children who entered at 36-47, 48-60 months,
 - Percentage of children who entered at age expectations in 3, 2, 1, 0 outcome areas

Interpreting District Data: What Questions Do We Ask?

Is our early childhood special education program effective?

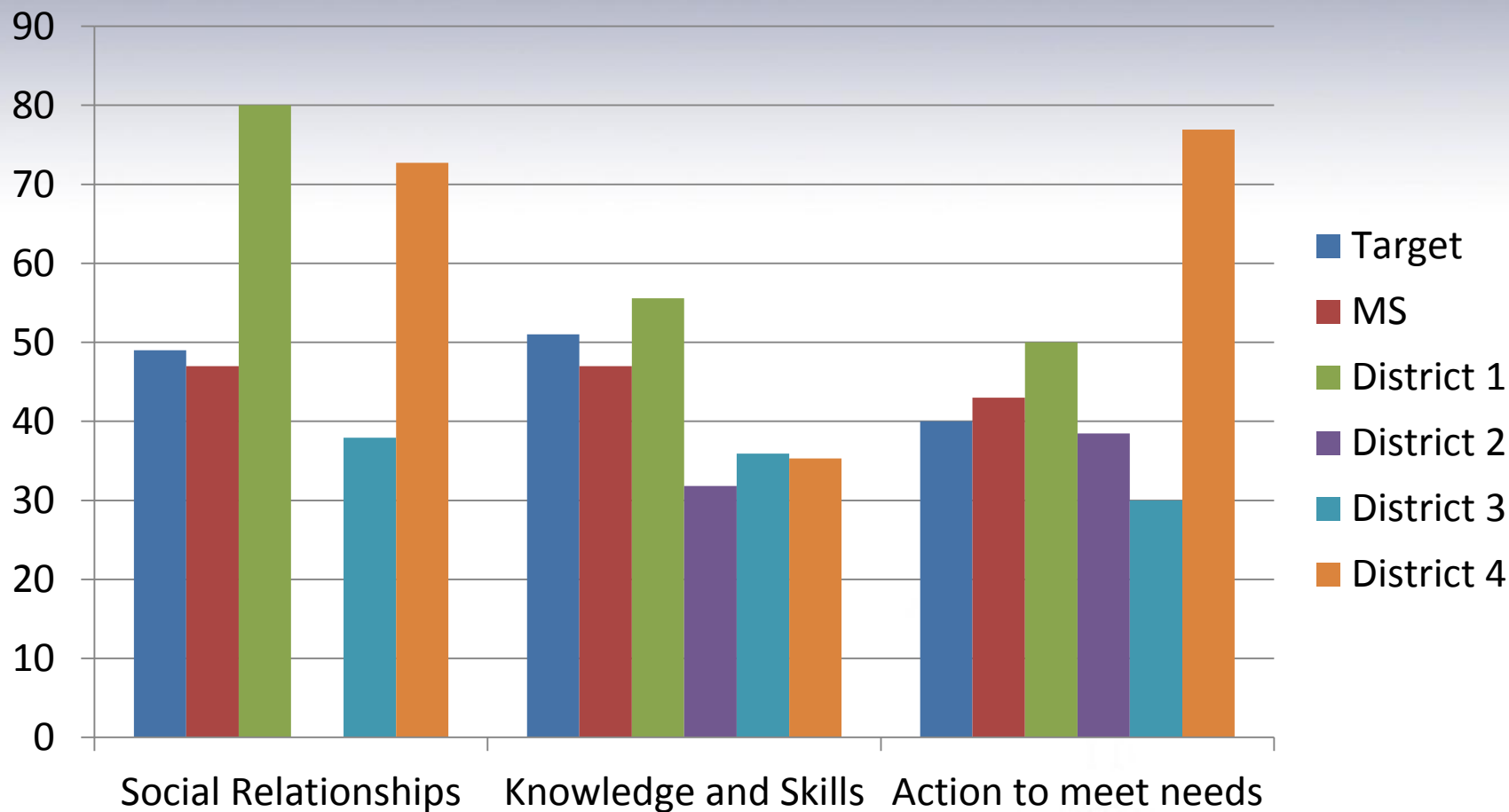
- Comparisons about services
 - Types of services provided
 - Quantity of services provided
 - Locations where services provided
 - By whom are services provided
 - Amount of time receiving services

Interpreting District Data: What Questions Do We Ask?

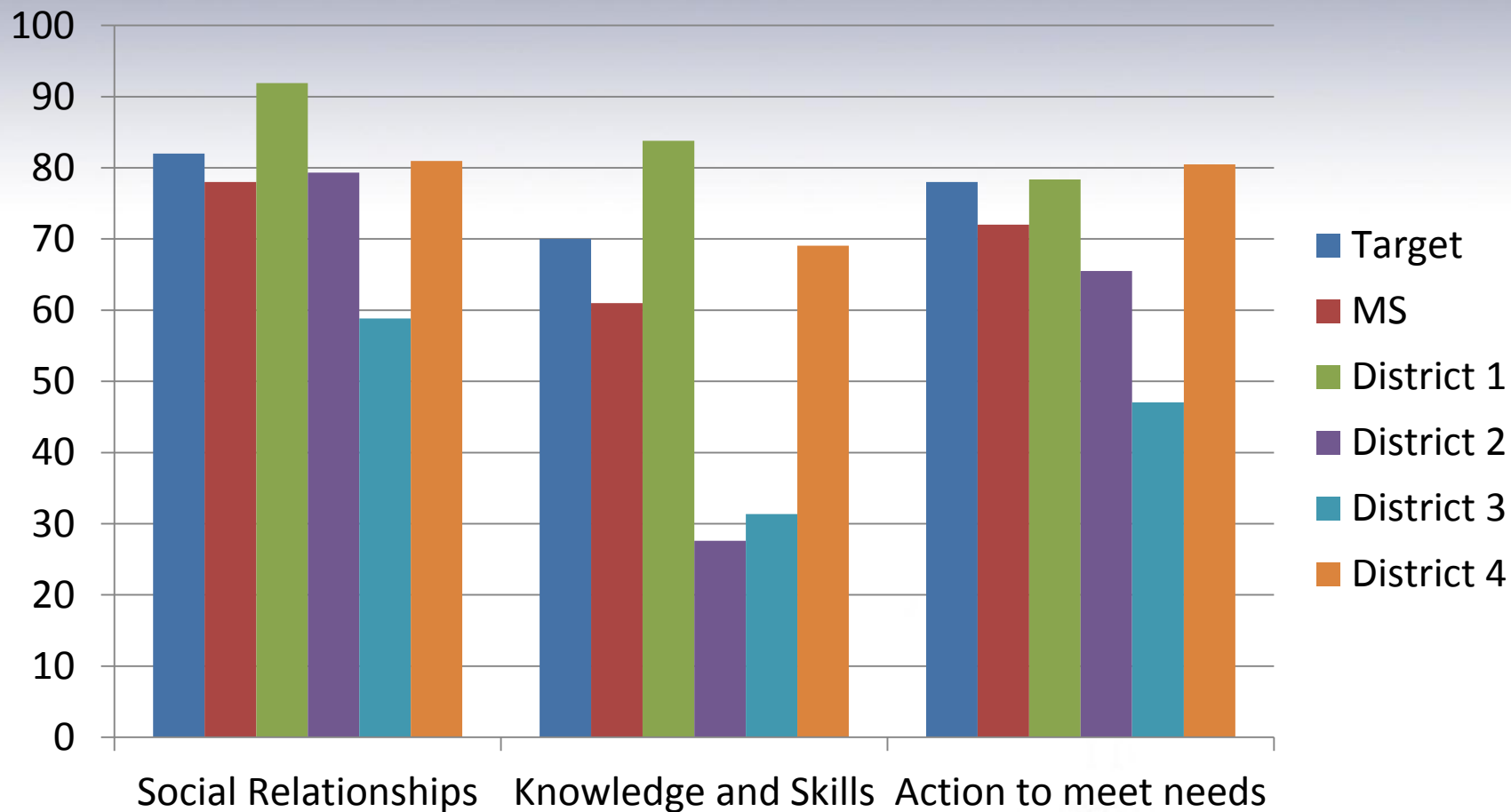
What programs need improvements or targeted supports?

- Compare programs on their Summary Statements 1, 2
- Compare programs on their Outcomes A, B, C
- Compare programs on their percentage of missing data
 - Should have >12% of child count included [most report >30%]
- Compare programs on their percentage of children who were served less than 6 months
- Compare programs on their percentage of children in category a., b., c., d., e. per outcome
 - Should have <10% for a. [most report <2%]
 - Should have <65% for e. [most report <40%]

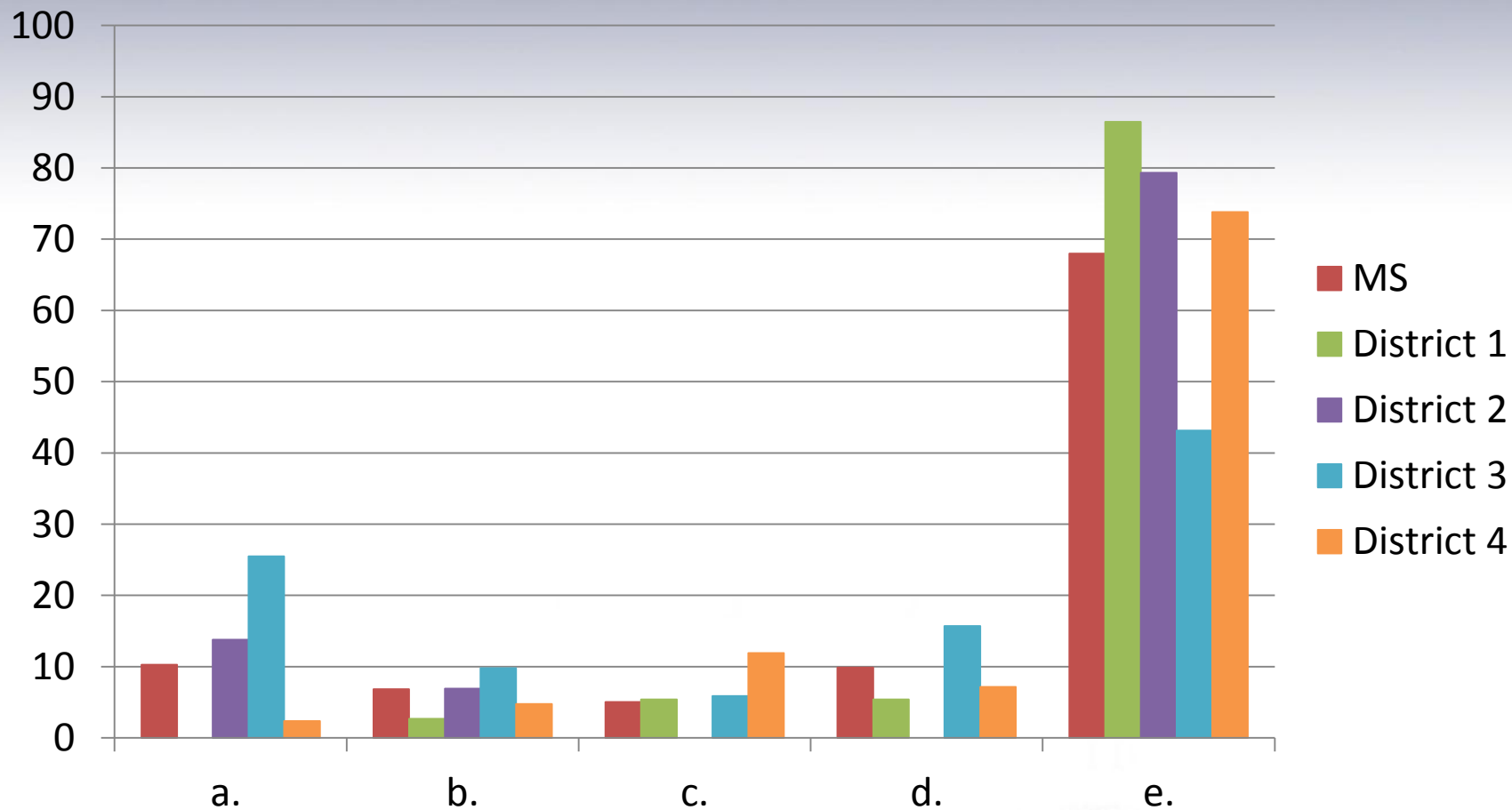
Interpreting District Data: Summary Statement 1



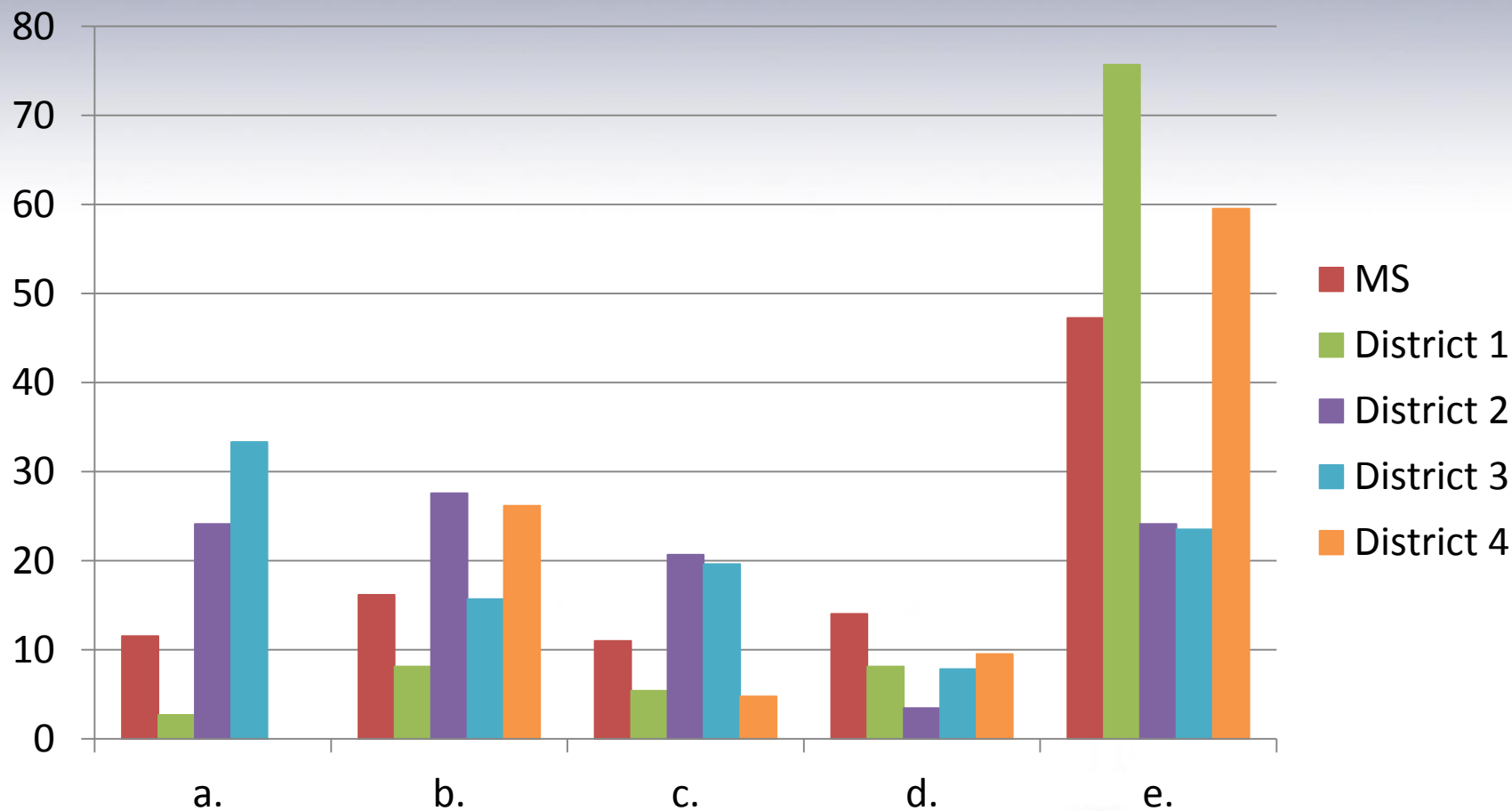
Interpreting District Data: Summary Statement 2



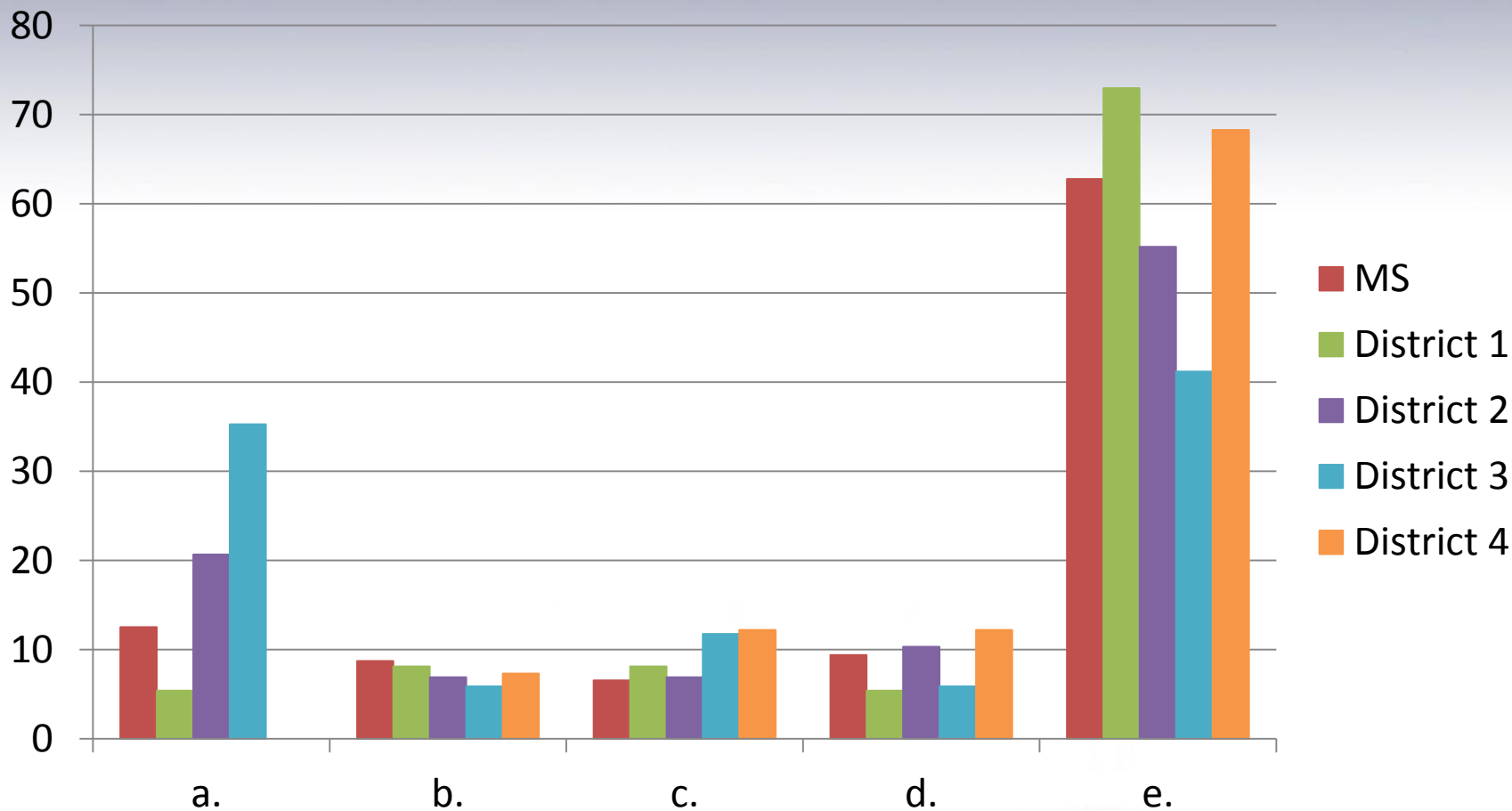
Interpreting District Data: Outcome A: Social/Emotional



Interpreting District Data: Outcome B: Knowledge/Skills



Interpreting District Data: Outcome C: Meets Needs



Interpreting District Data: What Questions Do We Ask?

What else is influencing outcomes for children in our preschool special education programs?

- Compare children who received early intervention to those who did not
- Compare on early childcare programs children attend (e.g., Head Start, local private child care center, or school-based self-contained classroom)
- Compare on family or neighborhood variables (e.g., compare on family education level, mobility, current zip code/bus route, proximity to school)

Promising Practices: Resources and Online Training

The Early Childhood Outcomes Center:
<http://projects.fpg.unc.edu/~eco/index.cfm>

Understanding Young Children's Development Series

- Focus on Positive Social Emotional Skills
<http://ucpnet.acrobat.com/p59659093/>
- Focus on Children's Acquisition & Use of Knowledge & Skills
https://ucpnet.adobeconnect.com/_a47435447/p9bq60bntyx/
- Focus on Taking Appropriate Action to Meet Needs
https://ucpnet.adobeconnect.com/_a47435447/p6jrkxrbqjp/

Promising Practices: Resources on Practices

- General Academics
 - California Learning Resource Network: www.clrn.org
 - Doing What Works: dww.ed.gov
 - Intervention Central: www.interventioncentral.org
 - National Center for Learning Disabilities: www.nclld.org
 - Promising Practices Network: www.promisingpractices.net
 - What Works Clearinghouse: www.whatworks.ed.gov
 - Wing Institute: winginstitute.org
- Reading
 - Big Ideas in Beginning Reading: reading.uoregon.edu
 - Florida Center for Reading Research: www.fcrr.org
 - Literacy Information & Communication System: lincs.ed.gov
 - National Reading Panel: www.nationalreadingpanel.org
 - Oregon Reading First: oregonreadingfirst.uoregon.edu

Promising Practices: What Works Clearinghouse

Outcome A-Social/Emotional

- Applied Behavior Analysis
- *The Incredible Years*TM
- *First Step to Success*
- *Positive Action*

Outcome B-Knowledge/Skills

- Interactive shared book reading
- Sound foundations
- Phonological awareness plus letter knowledge training

- Dialogic reading
- *Building Blocks for Math (SRA Real Math)*
- *Pre-K Mathematics*
- *Headsprout*[®] early reading
- *Literacy Express*
- *Doors to Discovery*TM
- *DaisyQuest*
- *Bright Beginnings*

Outcome C-Meets Needs

- Applied Behavior Analysis



Contact Information

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